

Master in Branch Civil Engineering

Speciality Structures

Brief

University of Khemis Miliana Structural Engineering Master's Program offers students a comprehensive, practical and theoretical background that prepares them to be successful in engineering practice or a future Ph.D. The program offers graduate students a wide range of courses in structural design, multi-hazard structural response, classical theory and advanced structural analysis techniques. The master's programme runs for a duration of two years, leading to a Master of academic degree. During each year, students can earn 60 credits and complete the programme by accumulating a total of 120 credits.

Field	Branch	Speciality
<i>Sciences and Technologies</i>	Civil Engineering	<i>Structures</i>

First Semester

Teaching unit	Matter	Credit	Coefficient	C	TD	Practical Work	Volume (hour)
Fundamental Unit	Structural Mechanics	4	2	1h30	1h30		45h00
	Dynamics of Structures 1	4	2	1h30	1h30		45h00
	Reinforced Concrete Structures 1	4	2	1h30	1h30		45h00
	Metallic Structures	6	3	3h00	1h30		67h30
Methodological unit	Programming Complement	4	2	1h30		1h30	45h00
	Experimental Methods	2	1			1h30	22h30
	Innovative Materials and Durability	3	2	1h30		1h00	37h30

Teaching unit	Matter	Credit	Coefficient	C	TD	Practical Work	Volume (hour)
Discovery unit	Course of choice 1	1	1	1h30			22h30
	Course of choice 2	1	1	1h30			22h30
Transversale Unit	Technical English and terminology	1	1	1h30			22h30

Second Semester 2

Teaching unit	Matter	Credit	Coefficient	Courses	TD	Practical Work	Volume (hour)
Fundamental Unit	Elasticity	6	3	3h00	1h30		67h30
	Dynamics of Structures 2	4	2	1h30	1h30		45h00
	Reinforced Concrete Structures 2	4	2	1h30	1h30		45h00
	Foundations and Supports Structures	4	2	1h30	1h30		45h00
Methodological unit	Finite Element Methods	5	3	1h30	1h30	1h00	65h00
	Metal Constructions Project	4	2	1h30		1h30	45h00
Discovery unit	Course of choice 3	1	1	1h30			22h30
	Course of choice 4	1	1	1h30			22h30
Transversale Unit	Ethics, deontology and intellectual property	1	1	1h30			22h30

Third Semester

Teaching unit	Matter	Credit	Coefficient	C	TD	TP	Volume (hour)
Fundamental Unit	Prestressed Concrete	6	3	3h00	1h30		67h30
	Plasticity and Damage	4	2	1h30	1h30		45h00
	Earthquake Engineering	4	2	1h30	1h30		45h00
	Special Structures	4	2	1h30	1h30		45h00
Methodological unit	Reinforced Concrete Structures Project	6	3	1h30		3h00	67h30
	Structural Modeling	3	2			2h30	37h30
Discovery unit	Course of choice 5	1	1	1h30			22h30
	Course of choice 6	1	1	1h30			22h30
Transversale Unit	Literature Search and Brief Design	1	1	1h30			22h30

Semester 4

Internship in a company sanctioned by a thesis and a defense.

	VHS	Coeff	Crédits
Personal Work	550	09	18
Internship in a company	100	04	06
Seminars	50	02	03
Other (Supervision)	50	02	03
Total Semester 4	750	17	30